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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/675,292	09/30/2003	Robert A. Horton	PREC-35990	5448

7590 10/06/2004

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EXAMINER	
REDDICK, MARIE L	

ART UNIT	PAPER NUMBER
1713	

DATE MAILED: 10/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/675,292	HORTON ET AL.
	Examiner	Art Unit
	Judy M. Reddick	1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 June 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4 and 5* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *4* is/are allowed.

6)☒ Claim(s) *1,2 and 5* is/are rejected.

7)☒ Claim(s) *4* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Applicant's Amendment/Declaration filed 06/24/04 has been fully considered with the following results.

a) The Amendment is sufficient to remove the rejection under 35 USC § 112, 2nd paragraph and the rejection of claim 4 under 35 USC § 103 (a) over Daskivich (U.S. 3,811,903). However, the Amendment is insufficient to remove the rejection of claims 1,2 & 5(newly added and equivalent to cancelled claim 3) under 35 USC § 103 (a) over Daskivich (U.S. 3,811,903) and claim 1 under 35 USC § 102 (b)/103(a) over Applicants' implied admission in combination with Daskivich (U.S. 3,811,903).

b) As to the Declaration, such is insufficient to remove either of the antecedently recited prior art rejections.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1, 2 & 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daskivich (U.S. 3,811,903). Daskivich relates generally to injection molding materials, and more specifically to new and useful improvements in materials for injection molding casting patterns to be used in the lost pattern processes of investment casting (Abstract, col. 1, lines 10-16). Daskivich also teaches that the inventive pattern materials exhibit improved flow characteristics and result in reduced air entrapment of the molded patterns and, as such, is attained by providing a pattern material consisting essentially of at least 0.03 % by weight of a silicone fluid admixed with at least 10% by weight of a wax containing injection moldable thermoplastic composition (col. 2, lines 27-35). Daskivich further, @ col. 2, lines 62-68, teaches that that injection moldable, thermoplastic compositions of the prior art are typically formulated to include wax in an amount of at least 10% by weight in order to obtain the desired properties which

permit patterns made from the compositions to be heated and melted when eliminating the patterns from refractory molds. Daskivich further, @ the paragraph bridging cols. 2-3, teaches that the wax or ***waxes*** used in the formulations are of the class of unctuous, fusible, variable viscous to solid substances having a characteristic waxy luster which are insoluble in water but are at least partially soluble in organic solvents and that the useful waxes are characteristically composed of high molecular weight substances, and may be classified according to their origin as animal waxes such as stearic acid, vegetable waxes such as lauric acid, mineral waxes, and synthetic waxes such as Fisher-Tropsch wax, stearone and laurone and the like. Daskivich also teaches that other resins, both natural and synthetic, MAY be included in the composition to contribute to the desired properties of dimensional stability, low thermal expansion and contraction and ease of melting (col. 3, lines 28-40) and that the thermoplastic compositions can also include fillers in an amount up to 50% by wt. for any desired purpose(col. 3, lines 41-44). At col. 3, lines 19-28, Daskivich teaches that the wax or waxes of the thermoplastic compositions are combined with a resin such as vinyl resins, especially ethylene/vinyl acetate polymers, ethyl cellulose and the like to impart toughness and provide the necessary strength. Daskivich @ col. 4, lines 63-68, teaches that a preferred formulation for the pattern material composition is vinyl resin(5-40% by weight), wax(10-50% by weight) and Other resins(30-70% by weight) and more specifically(col. 4, lines 1-9), Ethylene/vinyl acetate polymer(5-40% by weight), paraffin wax(10 to 30% by weight) and other resins(30-70% by weight). Daskivich further @ col. 4, lines 31-43 teaches that in preparing these formulations, all of the ingredients except for the vinyl resin may be added to a wax melting kettle, such as an electrically heated wax melting pot or a jacketed kettle, which is capable of melting and heating the ingredients to a temperature in the range of from about 270 degrees F to about 300 degrees F and subsequently adding the vinyl resin to the other melted ingredients while stirring and heating is continued to completely melt the vinyl resin and assure a uniform blend. The melt is then cooled to form ***solid blocks***, which are subsequently reduced to granules of a size that can be fed from the hopper into the injection cylinder of a plastic injection machine.

The disclosure of Daskivich differs basically from the claimed invention as per the non-express guidelines to use, in the formulation containing vinyl resin such as ethylene/vinyl acetate polymer, a combination of animal wax, viz., stearic acid and synthetic wax, viz., stearone and/or laurone. However, based on their identified disclosed equivalency, it would have been obvious to the skilled artisan, following the teachings of Daskivich at col. 3, lines 1-18 and the exemplified formulations @ col. 4, lines 1-29, to use a combination of stearic acid(fatty acid) and stearone and/or laurone(fatty acid ketones) in an ethylene/vinyl acetate polymer-containing formulation as well as in an amount, as claimed, as per such having been within the purview of the general disclosure of Daskivisch and with a reasonable expectation of success, absent a clear showing of unexpected results, commensurate in scope with the claims.

As to the expendable and machinable properties per the claimed invention, it would be expected that the injection moldable thermoplastic composition of Daskivich, as modified supra, would possess these properties since it is the same as and made under essentially the same conditions of the inventive materials. Moreover, a prima facie case of obviousness (for a composition) does not require the solution of the same problem or recognition of the same advantages as the applicants invention. In re Dillon 16 USPQ2nd 1897 (CAFC, en banc, 1990), which overrules In re Dillon 13 USPQ 2nd 1337 and In re Wright 6 USPQ 2nd 1959.

"The fact that appellant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious." Ex parte Obiaya, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

As to the capability of the composition being cast in blocks machined to a desired shape, although this is interpreted as an intended use, refer to col. 4, lines 40-43 wherein this limitation is taught.

As to the "consisting of" clause such is qualifying the step of "adding" and not the material itself (claim 1). Moreover, the 'other resins" are merely exemplary of a preferred embodiment and to this end, all disclosures of the prior art, including unpreferred or auxiliary embodiments, must be considered in determining obviousness. In re Mills, 176 USPQ 196 (CCPA 1972); In re Lamberti, 192 USPQ 278; In re Boe, 148 USPQ 507. A reference is available for all

that it teaches, including disclosures that teach away from invention as well as disclosures that point toward invention. Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 296 (Fed. Cir. 1985). Even if this turns out not to be the case, it would have been obvious to one of ordinary skill in the art to omit the ingredient, in excess of the claimed components, viz., "other resins", along with its function (property enhancer) as provide for under the guise of In re Kuhle, 526 F.2d553, 188 USPQ 7 (CCPA 1975) (deleting a prior art switch member and thereby eliminating its function was an obvious expedient).

As to the limitations per claim 5, the operable content of vinyl resin, viz., ethylene-vinyl acetate polymer, is 5 to 40 wt.%, the operable content of wax is 10-50 wt.% and the operable content of other resins is 30-70 wt.% and not precluded from the claimed invention since the "consisting essentially of" clause(claim 2) only precludes those components that would materially alter the basic and novel characteristics of a composition as provided for under the guise of Ex parte Davis(80 USPQ 448) and In re Janakirama-Rao(137 USPQ 893).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5 The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claim 1 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Applicants' implied admission in combination with Daskivich(U.S. 3,811,903).

The recited expendable and machinable materials capable of being cast in blocks machined to a desired shape containing ethylene-vinyl resin and a fatty acid ketone per the preamble and confirmed by applicants own disclosure at page 2, 2nd paragraph and page 3, 1st and 2nd paragraphs which states, in essence, that expendable and machinable materials are well known to contain ethylene-vinyl resin and fatty acid ketone(s) per U.S. 4,064,083(incorporated by reference) is construed as a Jepson-type claim and interpreted as an implied admission that the preamble elements are old and constitute prior art. The disclosure of Daskivich is relied on for all that it teaches as set forth in the rejection of paragraph 3 supra as applied to claim 1. One having ordinary skill in the art would have readily envisaged adding the fatty acid wax, viz., stearic acid, identified as an equivalent to the fatty acid ketone wax(stearone/laurone), of Daskivich to the material impliedly admitted as old and this, as such, engenders an anticipation of the claimed invention.

Alternatively, even if this turns out not to be the case and the claim is not anticipated, to the extent that this admission by applicant that expendable and machinable materials are well known and comprise an ethylene-vinyl acetate resin and a fatty acid ketone, it would have been obvious to one having ordinary skill in the art to add the fatty acid wax component(stearic acid) of Daskivich who teaches that wax components such as stearic acid(fatty acid) and (stearone and laurone(fatty acid ketones)) are identified as useable equivalents in formulating similar such materials containing ethylene-vinyl resins such as ethylene-vinyl acetate to the implied admittedly old composition of ethylene-vinyl acetate + fatty acid ketone, and with a reasonable expectation of success.

Response to Arguments

7. Applicant's arguments filed 06/24/04 have been fully considered but they are not persuasive.

Relative to Daskivich-----The crux of Counsel's arguments appear to hinge on the waxes, viz., stearic acid and (stearone or laurone) not being equivalent. With all due respect to Counsel's opinion, ***for Daskivich's purpose***,

these waxes are taught as operable equivalents in forming the compositions of Daskivich and the Horton Declaration is therefore insufficient to remove the rejections based on Daskivich.

It is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.... [T] he idea of combining them flows logically from their having been individually taught in the prior art. In re Kerkhoven, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980).

As to the "synergistic effect" of combining fatty acid ketone with fatty acid, there is absolutely nothing viable on this record showing that the fatty acid ketone/fatty acid combination is ***synergistically*** better than the fatty acid ketone or fatty acid, individually.

Allowable Subject Matter

8. Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The instantly claimed invention (claim 4) is deemed allowable over Daskivich as per one having ordinary skill in the art would not have been endowed with any motivation to cull, from the disclosure of Daskivich, the precisely defined pattern material including 38-62 wt. % of at least one fatty acid and at least 38-62 wt. % of at least one fatty acid ketone, as claimed, with any reasonable expectation of success.

Conclusion

9. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Judy M. Reddick whose telephone number is (571)272-1110. The examiner can normally be reached on Monday-Friday, 6:30 a.m.-3:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571)272-1114. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Judy M. Reddick
Primary Examiner
Art Unit 1713

JMR
10/03/02